

CLAIMS

Accordingly, what is claimed is:

1. A water supply sub-system for connection to a main water supply system, said sub-system comprising:

a storage tank having an inlet for connection to said main water supply system, and an outlet;

an outlet line connected to the outlet of said storage tank;

a pump connected to said outlet line;

a sub-system supply line connected to said pump; and

a branch connection connected to said sub-system supply line.

2. A sub-system according to Claim 1 wherein a high-demand water using device is connectable to said branch connection to receive water from said water supply sub-system.

3. A sub-system according to Claim 2 wherein said high-demand water using device is a dialyzer re-use machine.

4. A sub-system according to Claim 2 wherein said high-demand water using device is a dialyzer pre-cleaning machine.

5. A sub-system according to Claim 1 wherein said sub-system comprises a plurality of branch connections whereby a plurality of water using devices may be simultaneously connected to respective branch connections so that said plurality of water using devices may simultaneously receive water from said water supply system.

6. A sub-system according to Claim 1 further comprising a feedback loop connected to said sub-system supply line.

7. A sub-system according to Claim 6 wherein said feedback loop is disposed downstream of said branch connection.

8. A sub-system according to Claim 6 wherein said feedback loop is disposed upstream of said branch connection.

9. A sub-system according to Claim 6 in which said storage tank has a spray head disposed therein, said spray head being connected to said inlet to said tank and being disposed to spray inlet water into said storage tank, said spray head also being connected to said feedback loop to receive recirculated water therefrom and spray said recirculated water into said storage tank.

10. A sub-system according to Claim 1 in which said storage tank has a spray head disposed therein, said spray head being connected to said inlet to said tank and being disposed to spray inlet water into said storage tank.

11. A sub-system according to Claim 1 further comprising an ultrafiltration device disposed in said supply line downstream of said pump and upstream of said branch connection.

12. A sub-system according to Claim 1 whereby said sub-system is used in a medical application.

13. A sub-system according to Claim 1 whereby said sub-system is used in a pharmaceutical manufacturing application.

14. A sub-system according to Claim 1 whereby said sub-system is used in an electronics manufacturing application.

15. A water supply system comprising
a water processing unit;
a main inlet line connected to said water processing unit;

a main outlet line leading from said water processing unit;
a plurality of main branch connections emanating from said main outlet line; and
a water supply sub-system connected to said main water supply system, said sub-system comprising:

a storage tank having an inlet and an outlet, said inlet being connectable to one of said plurality of main branch connections;
an outlet line connected to the outlet of said storage tank;
a pump connected to said outlet line;
a sub-system supply line connected to said pump; and
a sub-system branch connection connected to said sub-system supply line.

16. A water supply system according to Claim 15 wherein the water processing unit is a water purification device.

17. A water supply system according to Claim 15 wherein the water processing unit is a water storage device.

18. A water supply system according to Claim 15 wherein a low demand water device is connected to one of said plurality of main branch connections emanating from said main outlet line.

19. A water supply system according to Claim 18 wherein said low demand water device is a dialysis machine.

20. A sub-system according to Claim 15 wherein a high-demand water using device is connectable to said branch connection to receive water from said water supply sub-system.

21. A sub-system according to Claim 20 wherein said high-demand water using device is a dialyzer re-use machine.

22. A sub-system according to Claim 20 wherein said high-demand water using device is a dialyzer pre-cleaning machine.

23. A sub-system according to Claim 15 whereby said sub-system is used in a medical application.

24. A sub-system according to Claim 15 whereby said sub-system is used in a pharmaceutical manufacturing application.

25. A sub-system according to Claim 15 whereby said sub-system is used in an electronics manufacturing application.

26. A method for providing water from a main water supply system to a high demand device without adversely impacting the water flow parameters of the water flowing in said main water supply system, said method comprising,

connecting a supply sub-system to said main supply system, said sub-system comprising:

a storage tank having an inlet for connection to said main water supply system,
and an outlet;

an outlet line connected to the outlet of said storage tank;

a pump connected to said outlet line;

and connecting a high demand device to said supply sub-system;

flowing water through said main water supply system and into said sub-system;

flowing water in said sub-system to said high demand device for its use.

27. A method for providing water according to Claim 26 wherein said main water supply system has a low demand device connected thereto and wherein said step of flowing water through said main water supply system includes flowing water to said low demand device.

28. A method for providing water according to Claim 27 wherein said low demand device is a dialysis machine.

29. A method for providing water according to Claim 26 wherein said high demand device is a dialyzer re-use machine.

30. A method for providing water according to Claim 26 wherein said high-demand water using device is a dialyzer pre-cleaning machine.

31. A method for providing water according to Claim 26 which further comprises a step for disinfecting the main supply system using heat whereby the sub-system is isolated from main supply system during the disinfecting step.

32. A method for providing water according to Claim 26 which further comprises a step for disinfecting the sub-system using a chemical whereby the sub-system is isolated from main supply system during the disinfecting step.